

CLAIMS:

1. An electrostatic deflection system for deflecting an electron beam (132), comprising:
 - first deflection electrodes (112) for electrostatically deflecting the electron beam (132) in a first direction;
 - 5 – second deflection electrodes (114) for electrostatically deflecting the electron beam in a second direction perpendicular to the first direction, and
 - a focus electrode (110), cooperating with at least the first deflection electrodes (112), for establishing, in operation, a focusing electron lens field (120, 121) between the focus electrode (110) and the first deflection electrodes (112), said focusing electron
10 lens field (120, 121) focusing the electron beam in at least the first direction.
2. The electrostatic deflection system as claimed in Claim 1, wherein the focus electrode (210) cooperates with both the first (212) and the second deflection electrodes (214), for focusing the electron beam (232) in both the first and the
15 second directions.
3. The electrostatic deflection system as claimed in Claim 1 or 2, wherein, when seen in a direction of travel of the electron beam (132), the focus electrode (110) is arranged closest to an electron source (130), and the first and second deflection
20 electrodes (112; 114) are positioned behind the focus electrode (110).
4. The electrostatic deflection system as claimed in Claim 1 or 2, wherein, when seen in a direction of travel of the electron beam (232), one of the first and the second deflection electrodes (212; 214) is arranged closest to an electron source (230), and
25 the focus electrode (210) is positioned behind both the first and the second deflection electrodes.
5. The electrostatic deflection system as claimed in Claim 1,

wherein the first and second deflector electrodes (112, 114) are each arranged for receiving a static deflector voltage and a dynamic deflection voltage, said dynamic deflection voltage being at most 10% of said static deflector voltage.

- 5 6. The electrostatic deflection system as claimed in Claim 1,
wherein the focus electrode (110) is provided with an aperture having an elliptical shape.
7. A matrix display device comprising:
- an electron source (330) for generating an electron beam (332);
 - 10 – a display screen (340) with a plurality of picture elements (346; 347; 348; 349), said display screen being supplied with an anode voltage and being arranged for receiving said electron beam (332), the electron beam being associated with a portion (344) of said display screen (340) comprising a predetermined number of the picture elements, wherein the electron beam (332) is deflectable by means of an electrostatic deflection system
 - 15 (300) as specified in Claim 1, for scanning the electron beam (332) over the associated portion (344) of the display screen (340), the electron beam being focused on the display screen by means of the focusing electron lens.
8. The matrix display as claimed in Claim 7, wherein
- 20 the focus electrode (310), the first deflector electrodes (312, 313) and the second deflector electrodes (314, 315) are arranged for receiving at least a static voltage, the static voltage for one of said electrodes (310) being positioned closest to the display screen (340) being at least 50% of the anode voltage.
- 25 9. The matrix display as claimed in Claim 8, wherein
the smallest of said static voltages is at least 10% of the anode voltage.